

# Data Sheet FUJITSU Server PRIMERGY RX2540 M1 Dual socket 2U rack server

The data center standard without compromise

FUJITSU Server PRIMERGY systems provide the most powerful and flexible data center solutions for companies of all sizes, across all industries and for any type of workload. This includes expandable PRIMERGY tower servers for remote and branch offices, versatile rack-mount servers, compact and scalable blade systems, as well as density-optimized scale-out servers. They convince by business proven quality with a wide range of innovations, highest efficiency cutting operational cost and complexity, and provide more agility in daily operations in order to turn IT faster into a business advantage.

FUJITSU Server PRIMERGY RX rack systems are versatile rack-optimized servers providing best-inclass performance and energy efficiency, and thus form the "standard" in each data center. PRIMERGY RX servers deliver 20 years of development and production know-how resulting in extremely low failure rates below market average, and lead to continuous operations and outstanding hardware availability.

# PRIMERGY RX2540 M1

The FUJITSU Server PRIMERGY RX2540 M1 sets higher standards for usability, scalability and cost-efficiency. It is a 2U dual-socket rack server ideal for running enterprise applications, collaboration and messaging workloads as well as traditional databases. Plus, it substantially simplifies carrying out infrastructure-related tasks like server virtualization and consolidation. As one of the key innovations, versatile performance is quaranteed by a new generation of processors. The PRIMERGY RX2540 M1 can be equipped with two of the latest Intel® Xeon® E5-2600 v3 processors with up to 36 cores. Along with new DDR4 memory technology it boosts application performance to be able to cope with the increasing data growth and shortens time to business results. The modular design of the server offers excellent

expandability with up to 24 disk drives (available 02/2015), high storage density, DynamicLoM technology, up to 8 PCle Gen 3 I/O expansion slots. The new DynamicLoM technology offers users the ability to individually adapt the current server network as well as the ability to change and thus meet future requirements without giving the server infrastructure a general overhaul. The PRIMERGY RX2540 M1 comes with 2 redundant hot-plug power supply units, offering up to 96% energy efficiency. The Cool-safe® Advanced Thermal Design allows for operation in ambient temperatures of up to 40 °C/104 °F. Both these features in line help to reduce operational expenses.

















# Features & Benefits

# Main Features

# Versatile Performance to cope with data growth

- Intel® Xeon® E5-2600 v3 product family with up to 18 cores
- Up to 1536 GB DDR4 memory (available Q1/2015) and up to 8 PCIe slots
- Expanded scalability of up to 24x 2.5-inch (available 02/2015) + 4 additional rear option 2.5-inch HDD (available 02/2015) or up to 12x 3.5-inch storage drives

# **Increased Energy Efficiency**

- Fujitsu's Cool-safe® Advanced Thermal Design technology for a higher ambient temperature
- Redundant power supply units with 96% energy efficiency

# Foundation for Trust and Security

- Fujitsu ServerView Suite including tools for installation and deployment, permanent status monitoring and control
- BIOS, firmware and selected software are updated free of charge

# Innovations simplifying management and freeing up IT resources

- DynamicLoM to select the network connector of your choice -"plug&play-design" with 3 different port types, 3 different numbers of ports, and 2 different speeds and no need to upgrade to a new chip or new drivers.
- Customer-inspired design

## Extended lifecycle

The PRIMERGY RX2540 M1 is available for an extended time frame. While the regular lifecycle of PRIMERGY RX servers is around two years, configurations with the "long lifecycle" option however can be ordered over five years.

### Benefits

- Ready for the future and data growth scenarios with the performance of two processors – marking the standard of tomorrow with an increase in computing power of up to 55% compared to the previous generation (measured under SAP SD)
- DDR4 memory enables for higher bandwidth and lower consumption, optimized for data center tasks, enterprise applications but also collaboration & messaging solutions
- Flexible expandability and diverse options for storage devices permits for the integration of existing and new SSD and HDD as needed. Less today, more in future – or vice versa
- Not only "greener", also less expensive over time: Cost reduction due to lower energy consumption - both, air conditioning and the power supply itself
- Two hot-plug PSUs make it easy to maintain the running system and ensure a 99,997% uptime
- The comprehensive tools of the Fujitsu ServerView Suite eases the administrators life
- Lifecycle investment protection: Updates are very important in a fast-paced world, especially considering cyber crime
- DynamicLoM guarantees you the highest flexibility to integrate the server into your infrastructure – now and in future without overhauling the existing infrastructure
- Optimized for data centers and SMEs
- The extended availability offers planning reliability for long-term projects, integrated systems and public sector customers where a server system has to stay the same over a longer period.

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# Technical details

| PRIMERGY RX2540 M1          |   |                        |  |
|-----------------------------|---|------------------------|--|
| Base unit                   | PRIMERGY RX2540 M1 LFF  | PRIMERGY RX2540 M1 LFF |  |
| Housing types               | Rack  | Rack                   |  |
| Storage drive architecture  | 4x 3.5-inch SAS/SATA expandable   | 12x 3.5-inch SAS/SATA  |  |
| Power supply                | Hot-plug  | Hot-plug               |  |
| Mainboard                   |   |                        |  |
| Mainboard type              | D3289   |                        |  |
| Chipset                     | Intel® C612   |                        |  |
| Processor quantity and type | 1 - 2 x Intel® Xeon® processor E5-2600 v3 product family-based platform |                        |  |
|                             |   |                        |  |

### Processor

Intel® Xeon® processor E5-2603v3 (6C/6T, 1.60 GHz, TLC: 15 MB, Turbo: No, 6.4 GT/s, Mem bus: 1,600 MHz, 85 W, AVX Base 1.30 GHz)
Intel® Xeon® processor E5-2609v3 (6C/6T, 1.90 GHz, TLC: 15 MB, Turbo: No, 6.4 GT/s, Mem bus: 1,600 MHz, 85 W, AVX Base 1.90 GHz)
Intel® Xeon® processor E5-2620v3 (6C/12T, 2.40 GHz, TLC: 15 MB, Turbo: 2.60 GHz, 8.0 GT/s, Mem bus: 1,866 MHz, 85 W, AVX Base 2.10 GHz, AVX Turbo 2.60 GHz)

Intel® Xeon® processor E5-2623v3 (4C/8T, 3.00 GHz, TLC: 10 MB, Turbo: 3.30 GHz, 8.0 GT/s, Mem bus: 1,866 MHz, 105 W, AVX Base 2.70 GHz, AVX Turbo 3.30 GHz)

Intel® Xeon® processor E5-2630Lv3 (8C/16T, 1.80 GHz, TLC: 20 MB, Turbo: 2.10 GHz, 8.0 GT/s, Mem bus: 1,866 MHz, 55 W, AVX Base 1.50 GHz, AVX Turbo 2.10 GHz)

Intel® Xeon® processor E5-2630v3 (8C/16T, 2.40 GHz, TLC: 20 MB, Turbo: 2.60 GHz, 8.0 GT/s, Mem bus: 1,866 MHz, 85 W, AVX Base 2.10 GHz, AVX Turbo 2.60 GHz)

Intel® Xeon® processor E5-2637v3 (4C/8T, 3.50 GHz, TLC: 15 MB, Turbo: 3.60 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 135 W, AVX Base 3.20 GHz, AVX Turbo 3.50 GHz)

Intel® Xeon® processor E5-2640v3 (8C/16T, 2.60 GHz, TLC: 20 MB, Turbo: 2.80 GHz, 8.0 GT/s, Mem bus: 1,866 MHz, 90 W, AVX Base 2.20 GHz, AVX Turbo 2.80 GHz)

Intel® Xeon® processor E5-2643v3 (6C/12T, 3.40 GHz, TLC: 20 MB, Turbo: 3.60 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 135 W, AVX Base 2.80 GHz, AVX Turbo 3.40 GHz)

Intel® Xeon® processor E5-2650Lv3 (12C/24T, 1.80 GHz, TLC: 30 MB, Turbo: 2.10 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 65 W, AVX Base 1.50 GHz, AVX Turbo 2.10 GHz)

Intel® Xeon® processor E5-2650v3 (10C/20T, 2.30 GHz, TLC: 25 MB, Turbo: 2.60 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 105 W, AVX Base 2.00 GHz, AVX Turbo 2.60 GHz)

Intel® Xeon® processor E5-2660v3 (10C/20T, 2.60 GHz, TLC: 25 MB, Turbo: 2.90 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 105 W, AVX Base 2.20 GHz, AVX Turbo 2.90 GHz)

Intel® Xeon® processor E5-2667v3 (8C/16T, 3.20 GHz, TLC: 20 MB, Turbo: 3.40 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 135 W, AVX Base 2.70 GHz, AVX Turbo 3.30 GHz)

Intel® Xeon® processor E5-2670v3 (12C/24T, 2.30 GHz, TLC: 30 MB, Turbo: 2.60 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 120 W, AVX Base 2.00 GHz, AVX Turbo 2.60 GHz)

Intel® Xeon® processor E5-2680v3 (12C/24T, 2.50 GHz, TLC: 30 MB, Turbo: 2.90 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 120 W, AVX Base 2.10 GHz, AVX Turbo 2.80 GHz)

Intel® Xeon® processor E5-2683v3 (14C/28T, 2.00 GHz, TLC: 35 MB, Turbo: 2.50 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 120 W, AVX Base 1.70 GHz, AVX Turbo 2.50 GHz)

Intel® Xeon® processor E5-2690v3 (12C/24T, 2.60 GHz, TLC: 30 MB, Turbo: 3.10 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 135 W, AVX Base 2.30 GHz, AVX Turbo 3.00 GHz)

Intel® Xeon® processor E5-2695v3 (14C/28T, 2.30 GHz, TLC: 35 MB, Turbo: 2.80 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 120 W, AVX Base 1.90 GHz, AVX Turbo 2.60 GHz)

Intel® Xeon® processor E5-2697v3 (14C/28T, 2.60 GHz, TLC: 35 MB, Turbo: 3.10 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 145 W, AVX Base 2.20 GHz, AVX Turbo 2.90 GHz)

Intel® Xeon® processor E5-2698v3 (16C/32T, 2.30 GHz, TLC: 40 MB, Turbo: 2.80 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 135 W, AVX Base 1.90 GHz, AVX Turbo 2.50 GHz)

Intel® Xeon® processor E5-2699v3 (18C/36T, 2.30 GHz, TLC: 45 MB, Turbo: 2.80 GHz, 9.6 GT/s, Mem bus: 2,133 MHz, 145 W, AVX Base 1.90 GHz, AVX Turbo 2.60 GHz)

| Memory slots               | 24 (12 DIMMs per CPU, 4 channels with 3 slots per channel) |
|----------------------------|--|
| Memory slot type           | DIMM (DDR4)  |
| Memory capacity (min max.) | 4 GB - 1536 GB   |

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| Memory protection                | Advanced ECC   |  |
|----------------------------------|--|--|
|                                  | Memory Scrubbing SDDC (Chipkill <sup>m</sup> )   |  |
|                                  | Rank sparing memory support  |  |
|                                  | Memory Mirroring support   |  |
| Memory notes                     | Memory Mirroring with identical modules in both channel pairs of a bank (4 modules per bank), Rank sparing or Performance Mode with identical modules in all four channels (4 modules per bank). |  |
| Memory options                   | 8 GB (1 module(s) 8 GB) DDR4, registered, ECC, 2,133 MHz, PC4-2133R, DIMM, 1Rx4  |  |
|                                  | 8 GB (1 module(s) 8 GB) DDR4, registered, ECC, 2,133 MHz, PC4-2133R, DIMM, 2Rx8  |  |
|                                  | 16 GB (1 module(s) 16 GB) DDR4, registered, ECC, 2,133 MHz, PC4-2133R, DIMM, 2Rx4  |  |
|                                  | 32 GB (1 module(s) 32 GB) DDR4, registered, ECC, 2,133 MHz, PC4-2133P, LRDIMM, 4Rx4  |  |
|                                  | 32 GB (1 module(s) 32 GB) DDR4, registered, ECC, 2,133 MHz, PC4-2133R, DIMM, 2Rx4  |  |
| Nemory modules notes             | 1536 GB memory expected to be available Q1/2015, current max. memory capacity 768 GB   |  |
| nterfaces                        |  |  |
| JSB 2.0 ports                    | 5 x USB 2.0 (2x rear, 1x front external, 1x USB stick, 1x uSSD)  |  |
| JSB 3.0 ports                    | 5 x USB 3.0 (2x front, 2x rear, 1x internal for backup device)   |  |
| Graphics (15-pin)                | 2 x VGA (thereof 1x front optional)  |  |
| Serial 1 (9-pin)                 | 1 x serial RS-232-C optional, usable for iRMC or system or shared  |  |
| Management LAN (RJ45)            | 1 x dedicated management LAN port for iRMC S4(10/100/1000 Mbit/s)<br>Management LAN traffic can be switched to shared onboard LAN port   |  |
| Onboard or integrated Controller |  |  |
| RAID controller                  | additional RAID controller options are described under Components RAID controller  |  |
| ATA Controller                   | Intel® C612, 1 x SATA channel for ODD  |  |
| AN Controller                    | DynamicLoM based on Emulex XE100 series. All supported features are described in relevant system configurator. PXE-Boot via LAN from PXE server, iSCSI / FCoE boot (also diskless).              |  |
| Remote management controller     | Integrated Remote Management Controller (iRMC S4, 256 MB attached memory incl. graphics controller) IPMI 2.0 compatible  |  |
| rusted Platform Module (TPM)     | Infineon / separate module; TCG V1.2 compliant (option)  |  |
| lots                             |  |  |
| CI-Express 3.0 x8                | 3 x Low profile (2nd processor required for slot 4)  |  |
| CI-Express 3.0 x16               | 3 x Low profile (2nd processor required for slot 5 and 6)  |  |
| lot Notes                        | First PCIe Gen3 x8 slot may be occupied with a Modular RAID controller if configured.  |  |
|                                  | Important: 3 PCIe slots are supported with the first processor. 6 PCIe slots are supported with two processors.  |  |
|                                  | PCIe riser card options can expand number of slots by two (max. 8 in total) and support max. 4 full height slots.  Possible slot length described in relevant system configurator.               |  |
| ×                                | - Cossible stockength described in relevante system configuration.   |  |
| Orive bays                       | 25 - 1 25 - 1 / 1 02/2015  |  |
| torage drive bays                | 3.5-inch or 2.5-inch (rear option avail. 02/2015) hot-plug SAS/SATA  |  |
| accessible drive bays            | 1 x 5.25/0.4-inch for CD-RW/DVD  |  |
| lotes accessible drives          | All possible options described in relevant system configurator.  |  |
| Optional hard disk bays          | 4x 2.5-inch hot-plug SAS/SATA rear option  |  |
| Orive bays (Base unit specific)  |  |  |
| Storage drive bays               | 8 x 3.5-inch hot-plug SAS/SATA 12 x 3.5-inch hot-plug SAS/SATA   |  |
| Accessible drive bays            | 1 x 5.25/0.4-inch for CD-RW/DVD  |  |
| Optional accessible drives       | ODD 5.25" possible ODD 5.25" not possible  |  |
| ieneral system information       |  |  |
| lumber of fans                   | 5  |  |
| an configuration                 | redundant / hot-plug   |  |
| an notes                         | 4+1 redundant  |  |
| Operating panel                  |  |  |
| Operating buttons                | On/off switch  |  |
|                                  | Reset button   |  |
|                                  | NMI button   |  |
|                                  | ID button  |  |

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| 0                                      |   |
|--|---|
| Operating panel                        |   |
| Status LEDs                            | System status (orange / yellow) Identification (blue) Hard disks access (green) Power (amber / green) At system rear side: System status (orange / yellow) Identification (blue) LAN connection (green) LAN speed (green / yellow)                  |
| Service display                        | Optional: ServerView Local Service Display (LSD)  |
| BIOS                                   |   |
| BIOS features                          | UEFI compliant Legacy BIOS compatibility customer configuration option Secure boot support ROM based setup utility GPT support for boot drives larger than 2.2 TB Memory Redundancy support (Mirroring, Sparing)                                    |
|  | IPMI support Recovery BIOS BIOS settings save and restore Local BIOS update from USB device Online update tools for main Windows and Linux versions Local and remote update via ServerView Update Manager IPv4/IPv6 remote PXE & iSCSI boot support |
| Operating Systems and Virtualization : | Software  |
| Certified or supported operating       | Microsoft® Hyper-V Server 2012 R2   |
| systems and virtualization software    | Microsoft® Windows Server® 2012 R2 Datacenter   |
|  | Microsoft® Windows Server® 2012 R2 Standard   |
|  | Microsoft® Windows Storage Server 2012 R2 Standard  |
|  | Microsoft® Hyper-V Server 2012  |
|  | Microsoft® Windows Server® 2012 Datacenter  |
|  | Microsoft® Windows Server® 2012 Standard  |
|  | Microsoft® Windows Storage Server 2012 Standard   |
|  | Microsoft® Hyper-V™ Server 2008 R2  |
|  | Microsoft® Windows Server® 2008 R2 Datacenter   |
|  | Microsoft® Windows Server® 2008 R2 Enterprise   |
|  | Microsoft® Windows Server® 2008 R2 Standard   |
|  | VMware vSphere™ 5.5   |
|  | VMware vSphere™ 5.1 Embedded  |
|  | VMware vSphere™ 5.1   |
|  | SUSE® Linux Enterprise Server 12  |
|  | SUSE® Linux Enterprise Server 11  |
|  | Red Hat® Enterprise Linux 7   |
|  | Red Hat® Enterprise Linux 6   |
|  | Citrix® XenServer®  |
|  | Oracle® Linux 7   |
|  | Oracle® Linux 6   |
|  | Oracle® VM 3  |
| Operating system release link          | http://docs.ts.fujitsu.com/dl.aspx?id=d4ebd846-aa0c-478b-8f58-4cfbf3230473  |
| Operating system notes                 | Support of other Linux derivatives on demand  |
|  |   |

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| Server Management                   |  |
|-------------------------------------|--|
| Standard                            | ServerView Suite - Deploy  |
|                                     | SV Installation Manager  |
|                                     | SV Scripting Toolkit   |
|                                     | ServerView Suite - Control Operations Manager incl. PDA and ASR & R  |
|                                     | (Prefailure and Analysis; Automatic Server Recovery and Restart)   |
|                                     | Agents and CIM Providers   |
|                                     | System Monitor   |
|                                     | RAID Manager   |
|                                     | Capacity Management  |
|                                     | Power Management<br>Storage Support  |
|                                     | ServerView Suite - Maintain  |
|                                     | Remote Management (iRMC in combination with Intel® Node Manager)   |
|                                     | Update Management (BIOS, Firmware, Windows Drives and SV Agents)   |
|                                     | Performance Measurement  |
|                                     | Asset Management Online Diagnostics  |
|                                     | ServerView Suite - Integrate   |
|                                     | Integration packs e.g. for Microsoft System Center, VMware vCenter, Nagios, HP SIM and others  |
|                                     | Deployment Solutions and others  |
| Option                              | ServerView Suite - Maintain  |
|                                     | iRMC Advanced Pack incl. Advanced Video Redirection (AVR), video capturing and Virtual Media<br>ServerView Suite - Dynamize  |
|                                     | Virtual-IO Manager (VIOM)  |
|                                     | ServerView Suite - Integrate   |
|                                     | Integration pack for Fujitsu ManageNow® solution   |
| Server Management notes             | Regarding dependencies for ServerView Suite software products see dedicated product data sheets.   |
| Dimensions / Weight                 |  |
| Rack (W x D x H)                    | 482.4 mm (Bezel) / 445 mm (Body) x 770 x 86.6 mm   |
| Mounting Depth Rack                 | 740 mm   |
| Height Unit Rack                    | 2 U  |
| 19" rackmount                       | Yes  |
| Weight                              | up to 25 kg  |
| Weight notes                        | Actual weight may vary depending on configuration  |
| Rack integration kit                | Rack integration kit as option   |
| Environmental                       | F (0.00/14 40/10F)   |
| Operating ambient temperature       | 5 - 40 °C (41 - 104 °F)  |
| Operating temperature note          | Cool-safe® Advanced Thermal Design (above 35 $^{\circ}$ C or below 10 $^{\circ}$ C) depending on configuration. For detailed information see relevant system configurator. |
| Operating relative humidity         | 10 - 85 % (non condensing)   |
| Operating environment               | FTS 04230 – Guideline for Data Center (installation specification)   |
| Operating environment link          | http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe   |
| Noise emission                      | Measured according to ISO 7779 and declared according to ISO 9296  |
| Sound pressure (LpAm)               | Minimum noise : 33 dB(A) (idle) / 33 dB(A) (operating) Typical noise : 44 dB(A) (idle) / 44 dB(A) (operating)  |
| Sound power (LWAd; 1B = 10dB)       | Minimum noise : 5.6 B (idle) / 5.6 B (operating)   |
|                                     | Typical noise : 7.5 B (idle) / 7.5 B (operating)   |
| Noise notes                         | Noise emissions and operation modes depend on system configuration.  |
| Electrical values                   |  |
| Power supply configuration          | 1 x hot-plug power supply or 2x hot-plug power supply for redundancy   |
| Hot-plug power supply redundancy    | Optional   |
| Active power (max. configuration)   | 715 W  |
| Apparent power (max. configuration) | 753 VA   |
| Rated current max.                  | 7.68 A (100 V) / 2.98 A (240 V)  |
| Heat emission                       | 2574.0 kJ/h (2439.7 BTU/h)   |

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| 450W hot-plug, 94% (Platinum efficiency), 100-240V, 50-60Hz<br>800W hot-plug, 94% (Platinum efficiency), 100-240V, 50-60Hz<br>800W hot-plug, 96% (Titanium efficiency), 200-240V, 50-60Hz<br>1200W hot-plug, 94% (Platinum efficiency), 100-240V, 50-60Hz   |
|---|
|   |
| CB<br>RoHS (Substance limitations in accordance with global RoHS regulations)<br>WEEE (Waste electrical and electronical equipment)   |
| GS  |
| CE  |
| CSAc/us<br>FCC Class A  |
| VCCI:V3 Class A + JIS 61000-3-2   |
| KC (planned)  |
| CCC   |
| C-Tick (planned)  |
| BSMI  |
| http://globalsp.ts.fujitsu.com/sites/certificates   |
| There is general compliance with the safety requirements of all European countries and North America. National approvals required in order to satisfy statutory regulations or for other reasons can be applied for on request.  * Warning: This is a class A product. In a domestic environment this product may cause radio interference in which case the use may be required to take adequate measures. |
|   |

# Components

| Backup Drives  | LTO4HH Ultrium, 800 GB, 120 MB/s, half height, SAS 6Gb/s                   |  |
|----------------|--|--|
|                | LTO5HH Ultrium, 1,500 GB, 140 MB/s, half height, SAS 6Gb/s                 |  |
|                | LTO6HH Ultrium, 2,500 GB, 160 MB/s, half height, SAS 6Gb/s                 |  |
|                | RDX Drive, 320 GB, 500 GB, 1 TB , 25 MB/s, half height, USB 3.0            |  |
| Optical drives | Blu-ray Disc™ Triple Writer, (6x BD-RW, 8x DVD, 24x CD), ultraslim, SATA I |  |
|                | DVD Super Multi ultra slim , (8x DVD; 24x CD), ultraslim, SATA I           |  |

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# Hard disk drives

| HDD SATA, 6 Gb/s, 500 GB, 7,200 rpm, hot-plug, 3.5-inch, business critical |
|--|
| HDD SATA, 6 Gb/s, 500 GB, 7,200 rpm, hot-plug, 2.5-inch, business critical |
| HDD SATA, 6 Gb/s, 250 GB, 7,200 rpm, hot-plug, 2.5-inch, business critical |
| HDD SATA, 6 Gb/s, 4 TB, 7,200 rpm, hot-plug, 3.5-inch, business critical   |
| HDD SATA, 6 Gb/s, 3 TB, 7,200 rpm, hot-plug, 3.5-inch, business critical   |
| HDD SATA, 6 Gb/s, 2 TB, 7,200 rpm, hot-plug, 3.5-inch, business critical   |
| HDD SATA, 6 Gb/s, 1 TB, 7,200 rpm, hot-plug, 3.5-inch, business critical   |
| HDD SATA, 6 Gb/s, 1 TB, 7,200 rpm, hot-plug, 2.5-inch, business critical   |
| HDD SAS, 12 Gb/s, 900 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise       |
| HDD SAS, 12 Gb/s, 600 GB, 15,000 rpm, hot-plug, 3.5-inch, enterprise       |
| HDD SAS, 12 Gb/s, 600 GB, 15,000 rpm, hot-plug, 2.5-inch, enterprise       |
| HDD SAS, 12 Gb/s, 600 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise       |
| HDD SAS, 12 Gb/s, 450 GB, 15,000 rpm, hot-plug, 3.5-inch, enterprise       |
| HDD SAS, 12 Gb/s, 450 GB, 15,000 rpm, hot-plug, 2.5-inch, enterprise       |
| HDD SAS, 12 Gb/s, 450 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise       |
| HDD SAS, 12 Gb/s, 300 GB, 15,000 rpm, hot-plug, 3.5-inch, enterprise       |
| HDD SAS, 12 Gb/s, 300 GB, 15,000 rpm, hot-plug, 2.5-inch, enterprise       |
| HDD SAS, 12 Gb/s, 1.8 TB, 10,000 rpm, hot-plug, 2.5-inch, enterprise       |
| HDD SAS, 12 Gb/s, 1.2 TB, 10,000 rpm, hot-plug, 2.5-inch, enterprise       |
| HDD SAS, 6 Gb/s, 900 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise        |
| HDD SAS, 6 Gb/s, 600 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise        |
| HDD SAS, 6 Gb/s, 500 GB, 7,200 rpm, hot-plug, 2.5-inch, business critical  |
| HDD SAS, 6 Gb/s, 300 GB, 10,000 rpm, hot-plug, 2.5-inch, enterprise        |
| HDD SAS, 6 Gb/s, 4 TB, 7,200 rpm, hot-plug, 3.5-inch, business critical    |
| HDD SAS, 6 Gb/s, 3 TB, 7,200 rpm, hot-plug, 3.5-inch, business critical    |
| HDD SAS, 6 Gb/s, 2 TB, 7,200 rpm, hot-plug, 3.5-inch, business critical    |
| HDD SAS, 6 Gb/s, 1.2 TB, 10,000 rpm, hot-plug, 2.5-inch, enterprise        |
| HDD SAS, 6 Gb/s, 1 TB, 7,200 rpm, hot-plug, 3.5-inch, business critical    |
| HDD SAS, 6 Gb/s, 1 TB, 7,200 rpm, hot-plug, 2.5-inch, business critical    |

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| Solid-State-Drive      | SSD SATA, 6 Gb/s, 800 GB, Read-Intensive Endurance, hot-plug, 3.5-inch, enterprise, 0.3 DWPD (drive writes per day                                    |
|------------------------|---|
|                        | for 5 years)  |
|                        | SSD SATA, 6 Gb/s, 800 GB, Mainstream Endurance, hot-plug, 3.5-inch, enterprise  |
|                        | SSD SATA, 6 Gb/s, 800 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise  |
|                        | SSD SATA, 6 Gb/s, 800 GB, hot-plug, 2.5-inch, enterprise, 0.3 DWPD (drive writes per day for 5 years)   |
|                        | SSD SATA, 6 Gb/s, 480 GB, Read-Intensive Endurance, hot-plug, 3.5-inch, enterprise, 0.3 DWPD (drive writes per day for 5 years)                       |
|                        | SSD SATA, 6 Gb/s, 480 GB, hot-plug, 2.5-inch, enterprise, 0.3 DWPD (drive writes per day for 5 years)   |
|                        | SSD SATA, 6 Gb/s, 400 GB, Mainstream Endurance, hot-plug, 3.5-inch, enterprise  |
|                        | SSD SATA, 6 Gb/s, 400 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise  |
|                        | SSD SATA, 6 Gb/s, 240 GB, Read-Intensive Endurance, hot-plug, 3.5-inch, enterprise, 0.3 DWPD (drive writes per day for 5 years)                       |
|                        | SSD SATA, 6 Gb/s, 240 GB, hot-plug, 2.5-inch, enterprise, 0.3 DWPD (drive writes per day for 5 years)   |
|                        | SSD SATA, 6 Gb/s, 200 GB, Mainstream Endurance, hot-plug, 3.5-inch, enterprise  |
|                        | SSD SATA, 6 Gb/s, 200 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise  |
|                        | SSD SATA, 6 Gb/s, 120 GB, Read-Intensive Endurance, hot-plug, 3.5-inch, enterprise, 0.3 DWPD (drive writes per day for 5 years)                       |
|                        | SSD SATA, 6 Gb/s, 120 GB, Read-Intensive Endurance, hot-plug, 2.5-inch, enterprise, 0.3 DWPD (drive writes per day for 5 years)                       |
|                        | SSD SATA, 6 Gb/s, 100 GB, Mainstream Endurance, hot-plug, 3.5-inch, enterprise  |
|                        | SSD SATA, 6 Gb/s, 100 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise  |
|                        | SSD SAS, 12 Gb/s, 800 GB, Mainstream Endurance, hot-plug, 3.5-inch, enterprise  |
|                        | SSD SAS, 12 Gb/s, 800 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise  |
|                        | SSD SAS, 12 Gb/s, 400 GB, Mainstream Endurance, hot-plug, 3.5-inch, enterprise  |
|                        | SSD SAS, 12 Gb/s, 400 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise  |
|                        | SSD SAS, 12 Gb/s, 200 GB, Mainstream Endurance, hot-plug, 3.5-inch, enterprise  |
|                        | SSD SAS, 12 Gb/s, 200 GB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise  |
|                        | SSD SAS, 12 Gb/s, 1.6 TB, Mainstream Endurance, hot-pluq, 3.5-inch, enterprise  |
|                        | SSD SAS, 12 Gb/s, 1.6 TB, Mainstream Endurance, hot-plug, 2.5-inch, enterprise  |
|                        | PCIe-SSD SFF, 800 GB, MLC, 2.5-inch, Flash drive, 10 DWPD (drive writes per day)  |
|                        | PCIe-SSD SFF, 2 TB, MLC, 2.5-inch, Flash drive, 10 DWPD (drive writes per day)  |
|                        | PCIe-SSD SFF, 1.6 TB, MLC, 2.5-inch, Flash drive, 10 DWPD (drive writes per day)  |
|                        |   |
|                        | DOM SATA, 6 Gb/s, 128 GB, non hot plug, enterprise, 345TBW (Seq. write)   |
|                        | DOM SATA, 6 Gb/s, 64 GB, non hot plug, enterprise, 172TBW (Seq. write)  |
|                        | DOM SATA, 6 Gb/s, 32 GB, non hot plug, enterprise, 86TBW (Seq. write)   |
| CSI / SAS Controller   | SAS Ctrl. 12 Gbit/s 8 ports int. PCle 3.0 x8  |
|                        | SAS Ctrl. 12 Gbit/s 8 ports ext. PCle 3.0 x8  |
| RAID Controller        | RAID Ctrl., SAS/SATA 12 Gbit/s, Fujitsu PRAID CP400i, 8 ports int.<br>RAID level: 0, 1, 1E, 10, 5, No BBU support                                     |
|                        | RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s, Fujitsu PRAID EP420i, 8 ports int.<br>RAID level: 0, 1, 10, 5, 50, 6, 60, 2 GB, Optional FBU based on LSI SAS3108 |
|                        | RAID 5/6 Ctrl., SAS/SATA 12 Gbit/s, Fujitsu PRAID EP400i, 8 ports int.<br>RAID level: 0, 1, 10, 5, 50, 6, 60, 1 GB, Optional FBU based on LSI SAS3108 |
| bre Channel controller | Fibre Channel Host Bus Adapter 1 x 8 Gbit/s Qlogic QLE2560 MMF LC-style   |
|                        | Fibre Channel Host Bus Adapter 2 x 8 Gbit/s Qlogic QLE2562 MMF LC-style   |
|                        | Fibre Channel Host Bus Adapter 1 x 8 Gbit/s Emulex LPe1250 MMF LC-style   |
|                        | Fibre Channel Host Bus Adapter 2 x 8 Gbit/s Emulex LPe12002 MMF LC-style  |
|                        | Fibre Channel Host Bus Adapter 1 x 16 Gbit/s Emulex LPe16000B LC-style  |
|                        | Fibre Channel Host Bus Adapter 2 x 16 Gbit/s Emulex LPe16002B LC-style  |
|                        | Fibre Channel Host Bus Adapter 1 x 16 Gbit/s Qlogic QLE2670 LC-style  |
|                        | Fibre Channel Host Bus Adapter 2 x 16 Gbit/s Qlogic QLE2672 LC-style  |

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| Communication, Network                | Converged Network Adapter 2 x 10 Gbit/s PCle 3.0 x8 SFP+ ( Emulex )   |  |
|---------------------------------------|---|--|
|                                       | Ethernet Ctrl. 2 x 10 Gbit/s PCIe 2.0 x8 SFP+ ( Fujitsu )   |  |
|                                       | Ethernet Ctrl. 2 x 10 Gbit/s PCle 2.1 x8 RJ45 (Intel®)  |  |
|                                       | Ethernet Ctrl. 2 x 10 Gbit/s PCle 3.0 x8 SFP+ ( Emulex )  |  |
|                                       | Ethernet Ctrl. 2 x 1 Gbit/s PCle 2.1 x4 RJ45 ( Intel® )   |  |
|                                       | Ethernet Ctrl. 4 x 1 Gbit/s PCle 2.1 x4 RJ45 (Intel®)   |  |
|                                       | InfiniBand HCA 1 x 40 Gbit/s PCIe 2.0 x8 QSFP (Intel®)  |  |
|                                       | InfiniBand HCA 1 x 40 Gbit/s PCIe 3.0 x8 QSFP ( Mellanox )  |  |
|                                       | InfiniBand HCA 1 x 56 Gbit/s PCle 3.0 x8 QSFP for the US market max. one IB HCA 56Gb controller can be installed (Mellanox) |  |
|                                       | InfiniBand HCA 2 x 40 Gbit/s PCIe 2.0 x8 QSFP ( Intel® )  |  |
|                                       | InfiniBand HCA 2 x 40 Gbit/s PCIe 3.0 x8 QSFP ( Mellanox )  |  |
|                                       | InfiniBand HCA 2 x 56 Gbit/s PCle 3.0 x8 QSFP for the US market max. one IB HCA 56Gb controller can be installed (Mellanox) |  |
|                                       | Interface modul for Dynamic LoM 2 x 10 Gbit/s RJ45 ( Emulex )   |  |
|                                       | Interface modul for Dynamic LoM 2 x 10 Gbit/s SFP+ ( Emulex )   |  |
|                                       | Interface modul for Dynamic LoM 2 x 1 Gbit/s RJ45 ( Emulex )  |  |
|                                       | Interface modul for Dynamic LoM 4 x 1 Gbit/s RJ45 ( Emulex )  |  |
|                                       | Interface modul for Dynamic LoM x ( )   |  |
| LAN controller notes                  | PLAN AP 1x1Gbit Cu Intel I210-T1 LP (Copper), available on special release with order number S26361-F3852-E201              |  |
| Graphics add on cards (optional)      | NVIDIA® GRID™ K1 16 GB, 768 cores, PCle 3.0 x16   |  |
|                                       | NVIDIA® GRID™ K2 8GB, 3,072 cores, PCle 3.0 x16   |  |
| Graphics                              | NVIDIA® Quadro® NVS 300 LP, PCIe x1, 2x DVI/VGA   |  |
| Graphics add on cards                 | NVIDIA® NVS™315 LP, PCIe x16, 2x DVI/VGA  |  |
| Rack infrastructure                   | Rackmount kit full extraction (820mm), tool less mounting, length variable 559-914mm  |  |
|                                       | Cable Management for 19-inch DataCenter / PRIMECENTER Racks   |  |
|                                       | Cable Arm 2U for PRIMECENTER- and 3rd-party racks   |  |
|                                       |   |  |
| Warranty period                       | 3 years   |  |
| Service level                         | Onsite warranty   |  |
| Warranty Terms & Conditions           | www.fujitsu.com/support   |  |
| Product Support Services - the perfec |   |  |
| Support Pack Options                  | Globally available in major business areas:<br>9x5, Next Business Day Onsite Response Time                                  |  |
|                                       | 9x5, 4h Onsite Response Time  |  |
|                                       | 24x7, 4h Onsite Response Time   |  |
| Recommended Service                   | 24x7, Onsite Response Time: 4h - For locations outside of EMEA please contact your local Fujitsu partner.                   |  |
| Service Lifecycle                     | 5 years after end of product life   |  |
| Service Weblink                       | http://www.fujitsu.com/fts/products/product-support-services/   |  |

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# More information

### Fujitsu OPTIMIZATION Services

In addition to Fujitsu PRIMERGY RX2540 M1, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

# Fujitsu Portfolio

Build on industry standards, Fujitsu offers a full portfolio of IT hardware and software products, services, solutions and cloud offering, ranging from clients to datacenter solutions and includes the broad stack of Business Solutions, as well as the full stack of Cloud offering. This allows customers to leverage from alternative sourcing and delivery models to increase their business agility and to improve their IT operation's reliability.

# **Computing Products**

www.fujitsu.com/global/products/computing/

# Software

www.fujitsu.com/software/

# More information

Learn more about Fujitsu PRIMERGY RX2540 M1, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website. www.fujitsu.com/fts

# Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.

Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT. Please find further information at http://www.fujitsu.com/qlobal/about/environment



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